

REMARKS

Claims 1-6, 8, 16, 18, 23-27, and 30-32 were pending at the time of the Office Action. Claims 28 and 29 have been withdrawn from consideration. Claims 1-6, 8, 16, 18, and 23-27, and 30-32 stand rejected under 35 U.S.C. § 103. This rejection is addressed below.

Rejection under 35 U.S.C. § 103

Claims 1-6, 8, 16, 18, 23-27, and 30-32 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over An et al. (*Photochemistry and Photobiology* 76: 73-80, 2002; herein "An") in view of Chow et al. (*Clinical Cancer Research* 9: 3312-3319, 2003; herein "Chow"). The Examiner states (Office Action, page 3):

It would have been *prima facie* obvious for one of ordinary skill in the art at the time the invention was made to use the green tea extract of An to treat actinic keratoses... Since both An and Chow teach using green tea extract to prevent cancer, one of ordinary skill in the art would have been motivated to... combine the two references... to make the claimed... mixture since polyphenon E is known in the art as is evidenced by Chow.

This rejection is respectfully traversed.

Claims 1-6, 8, 16, 18, 23-27, and 30-32 are directed to methods for treating a patient suffering from actinic keratosis by administering a composition that includes a mixture of polyphenols and a carrier. As shown in Examples 1 and 2 of the specification, such polyphenolic mixtures are efficacious in the treatment of actinic keratosis.

In contrast to the present claims, neither An nor Chow discloses a method for the treatment of actinic keratosis. An describes basic experiments that measure COX-2 expression in cells excised from various skin lesions, including actinic keratoses. These keratoses were not treated in any way. In addition, in separate experiments, An looks at the potential for preventive effects of green tea extracts. An teaches the topical administration of green tea polyphenol (GTP) extract to murine or human skin prior to UVB irradiation. An fails to teach or suggest that the GTP extract treats an established keratosis. Indeed, An states (pages 78-79):

[T]he observed decrease in COX-2 expression in both murine and human skin receiving a topical application of GTP suggests that GTP may act as a chemopreventive agent by blocking this target.

Accordingly, An fails to teach or suggest that polyphenolic compounds would treat keratosis lesions. Neither does An provide a reasonable expectation of success for this outcome.

Chow fails to cure the deficiencies of An. Like An, Chow teaches the preventive nature of green tea extracts and green tea polyphenols, but fails to address the healing effects of such compositions. Chow indicates that “[g]reen tea and green tea polyphenols have been shown to possess cancer preventive activities in pre-clinical models systems” and discusses the safety and pharmacokinetics of green tea polyphenol mixtures (Abstract of Chow and page 3312, last sentence of Chow), but fails to indicate that such compositions could be used to treat an established disease (i.e., actinic keratosis). Thus, An and Chow, alone or in combination, fail to teach a method for treating a patient suffering from actinic keratosis by administering a composition that includes a mixture of polyphenols and a carrier.

Accordingly, Applicant respectfully requests that this rejection of claims 1-6, 8, 16, 18, 23-27, and 30-32 under 35 U.S.C. § 103(a) be withdrawn.

CONCLUSION

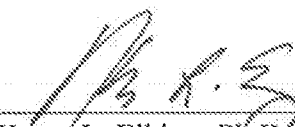
Applicant submits that this case is now in condition for allowance, and such action is respectfully requested.

Transmitted herewith is a Petition to extend the period for replying to the Office Action for three months, to and including January 9, 2011, and payment of the required extension fee.

If there are any additional charges or any credits, please apply them to Deposit Account No. 03-2095.

Respectfully submitted,

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